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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/914,868	09/04/2001	Paul Morgavi	032326-163	4219
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EXAMINER

RAHIMI, IRAJ A

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 02/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/914,868	MORGAVI, PAUL	
	Examiner	Art Unit	
	(Iraj) Alan Rahimi	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-4, 6-18 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. In papers filed on December 30, 2005 applicant requested reconsideration of the last rejection.

Response to Arguments

2. Applicant's arguments with respect to claims have been considered and are persuasive. Previous rejection has been withdrawn and new prior art has been introduced along with a new rejection. Response to the 112 rejection was considered satisfactory and rejection removed. Claims 12, 13, 15 and 16 that were considered allowable before are no longer allowable in view of applied art. This action is Non-Final.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3, 4, 7, 9, 14 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cummins (US patent 5,980,011) in view of Ju (US patent 5,806,992).

Regarding claim 1, Cummins discloses a machine for graphic printing on at least one card medium, comprising:

at least one ink-jet head 16;

A computer-aided vision device having at least one video camera (optical sensor 140) for dynamic measurement of geometric and/or positioning parameters of the card medium (column 6, lines 58-65). Ju discloses in column 6, lines 58-65 the optical sensor 140 (considered as video camera) for measuring thickness of the sheet (a print medium). Since the optical sensor is controlled by the controller (considered a computer) it

could be considered computer aided vision device.

However, Cummins does not disclose means for controlling the head to implement ink-jet printing on the card medium in accordance with the geometric and /or positional parameters provided by said video camera. Ju discloses in column 7, lines 12-21 and column 8, lines 48-57 adjusting the recording head by automatically sensing the thickness of the sheet.

Cummins and Ju are combinable because they are from the same field of endeavor that is printing images on a substrate like a card or a sheet.

At the time of invention it would have been obvious to a person ordinary skill in the art to use Ju for providing thickness measurements to the print head.

The motivation to do so would have been to print effectively on different thickness medium.

Therefore it would have been obvious to combine Cummins and Ju to obtain the invention as specified in claim 1.

Regarding claim 3, Cummins discloses a machine according to Claim 1, wherein the card medium is made of cardboard or paper (identification cards are typically printed on paper), and the inks used are aqueous, phase-change or solvent-based (column 1, lines 25-34).

Regarding claim 4, Cummins discloses a machine according to claim 1, wherein the card medium comprises a storage card, and said machine further includes a reader that reads information contained in the card, and communicates this information to the control means (column 5, lines 42-47).

Regarding claim 7, Cummins discloses a machine according to Claim 6, wherein the support element comprises a flat conveyor 70.

Regarding claim 14, Cummins discloses a machine according to claim 1, further including means for cross-linking the ink at the end of printing (column 6, lines 66-67).

Regarding claim 16, Ju discloses a machine according to claim 1, wherein said control means controls the print head to print in accordance with geometric and/or positioning parameters extracted beforehand from each card to be printed (column 7, lines 13-21).

Regarding claim 17, Cummins discloses a machine according to claim 11, wherein another one of said print heads is a monochrome head (inkjet 16) for marking the card medium.

Regarding claim 18, Cummins discloses a machine according to claim 14, wherein said cross-linking is performed by means of an ultraviolet lamp (column 6, lines 66-67).

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5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cummins (US patent 5,980,011) in view of Ju (US patent 5,806,992) and further in view of Amon (US patent 6,306,929).

Regarding claim 2, Cummins in view of Ju do not disclose a machine according to claim 1, wherein the medium card is made of plastic, and the inks used are capable of being cross-linked by radiation. Amon discloses in column 4, lines 47-65 and column 5, lines 1-10 curing the ink on plastic using UV radiation.

Cummins, Ju and Amon are combinable because they are from the same field of endeavor that is printing images on a substrate.

At the time of invention it would have been obvious to a person ordinary skill in the art to use UV radiation to cure ink on plastic.

The motivation to do so would have been to make the ink cure faster than air-drying.

Therefore it would have been obvious to combine Cummins, McCannel and Amon to obtain the invention as specified in claim 2.

6. Claims 6 and 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cummins (US patent 5,980,011) in view of Ju (US patent 5,806,992) and further in view of Amon (US patent 6,306,929).

Regarding claim 6, Cummins does not disclose a machine according to claim 1, further including a support element for receiving a plurality of cards to be printed and transporting said

cards past the head of the machine for continuous printing. McCannel discloses this limitation in Fig. 1.

Cummins, Ju and Mc Cannel are combinable because they are from the same field of endeavor that is printing images on a substrate like a card or a sheet.

At the time of invention it would have been obvious to a person ordinary skill in the art to use Mc Cannel for providing a support system for receiving plurality of cards.

The motivation to do so would have been to provide onlie storage of card in prepration for printing and encoding.

Therefore it would have been obvious to combine Cummins, Ju and McCannel to obtain the invention as specified in claim 1.

Regarding claim 9, McCannel discloses a machine according to claim 6, wherein the support element is perforated, and includes a suction device to hold the cards while it is moving (Fig. 1; column 3, lines 41-46).

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cummins (US patent 5,980,011) in view of Ju (US patent 5,806,992) and further in view of Klinefelter (US patent 6694,884).

Regarding claim 8, Cummins in view of Ju do not disclose a machine according to Claim 6 wherein the support element comprises a drum. Klinefelter discloses rollers 34 in Fig. 1 to meet this limitation.

Cummins, Ju and Klinfelter are combinable because they are from the same field of endeavor that is printing images on a substrate.

At the time of invention it would have been obvious to a person ordinary skill in the art to use a drum as the support element.

The motivation to do so would have been to reduce the length of the machine by eliminating a long conveyor belt.

Therefore it would have been obvious to combine Cummins, McCannel and Klinefelter to obtain the invention as specified in claim 8.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cummins (US patent 5,980,011) in view of Ju (US patent 5,806,992) and further in view of Kobayashi (US patent 5,771,058).

Regarding claim 10, Cummins in view of Ju do not disclose a machine according to Claim 6 wherein the support element comprises a drum. Kobayashi discloses rollers 34 in Fig. 1 to meet this limitation.

Cummins, Ju and Kobayashi are combinable because they are from the same field of endeavor that is printing images on a substrate.

At the time of invention it would have been obvious to a person ordinary skill in the art to use a drum as the support element.

The motivation to do so would have been to use the same printing machine to print on the back of the card.

Therefore it would have been obvious to combine Cummins, Ju and Kobayashi to obtain the invention as specified in claim 10.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cummins (US patent 5,980,011) in view of Ju (US patent 5,806,992) and further in view of Greive (US patent 6,189,684).

Regarding claim 11, Cummins in view of Ju do not disclose a machine according to Claim 6, comprising a number of print heads aligned along the direction of movement of the support element and facing said support element, at least one of which is a colour print head for printing images of the photographic or coloured type. Greive discloses in column 1, lines 22-31 print heads for color printing.

Cummins, Ju and Greive are combinable because they are from the same field of endeavor that is printing images on a substrate.

At the time of invention it would have been obvious to a person ordinary skill in the art to use number of print heads for color printing.

The motivation to do so would have been to use a separate head for each primary color.

Therefore it would have been obvious to combine Cummins, Ju and Greive to obtain the invention as specified in claim 11.

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10. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cummins (US patent 5,980,011) in view of Ju (US patent 5,806,992) and further in view of Wismer (US patent 4,070,497).

Regarding claim 12, Cummins in view of Ju do not disclose a machine according to claim 1, further including means for converting the ink into gel during printing by wavelength modulation, at a distance from the card.

Wismer discloses this limitation in column 6, lines 24-28.

Cummins, Ju and Wismer are combinable because they are from the same field of endeavor that is printing on a substrate.

At the time of invention it would have been obvious to a person ordinary skill in the art to use UV light (for wave length modulation) to gel the ink.

The motivation to do so would have been to prevent the ink from curing and allowing application of another coating(column 1, lines 57-59).

Therefore it would have been obvious to combine Cummins, Ju and Wismer to obtain the invention as specified in claim 12.

Regarding claim 13, Wismer discloses a machine according to claim 12, wherein said means for converting the ink to gel comprise an optical fiber placed after each print head, connected to a light radiation source that emits UVC radiation (column 6, lines 24-28). Gelling ink after one print head can be applied to gelling the ink after several print heads.

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11. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cummins (US patent 5,980,011) in view of Ju (US patent 5,806,992) and further in view of Whistler (US patent 6,086,107).

Regarding claim 15, Cummins in view of Ju do not disclose a machine according to claim 1, further including means for printing finishing material such as varnish, by ink jet, in accordance with geometric and/or positioning parameters of the card to be printed.

Whistler discloses in claim 6 this limitation.

Cummins, Ju and Whistler are combinable because they are from the same field of endeavor that is printing on a substrate.

At the time of invention it would have been obvious to a person ordinary skill in the art to use finishing materials such as varnish to print on a substrate.

The motivation to do so would have been to retain the printed ink.

Therefore it would have been obvious to combine Cummins, Ju and Whistler to obtain the invention as specified in claim 15.

Allowable Subject Matter

12. Claims 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Other Prior Art Cited

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Matsuda (US patent 6,120,196) discloses image-forming device using multiple factors to adjust print position.


Wen (US patent 6,109,704) discloses borderless ink jet printing on receivers.


Contact Information

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Iraj) Alan Rahimi whose telephone number is 571-272-7411. The examiner can normally be reached on Mon.-Fri. 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L Coles can be reached on 571-272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.


Alan Rahimi
January 31, 2005


TWYLER LAMB
PRIMARY EXAMINER